

## ABSTRACT

Processing systems and methods receive events, such as a transaction to an account, and converts the events into messages. Each message then invokes one or more rules which are executed by a rules engine. The execution of these rules may invoke the execution of additional rules. After all rules have executed, the account associated with the event is updated, such as by projecting the account. The rules have their parameters defined in a repository so that the parameters can be easily changed without any need to recompile. The processing systems receive authorizations and other transactions and runs in real-time as transactions arrive. As a result, balances are updated continuously and accounts are read and updated only when there is activity. Hierarchy is user configurable, including multiple hierarchy to any depth. System operations are controlled by rules and their parameters and most modifications can be accomplished without access to source code.